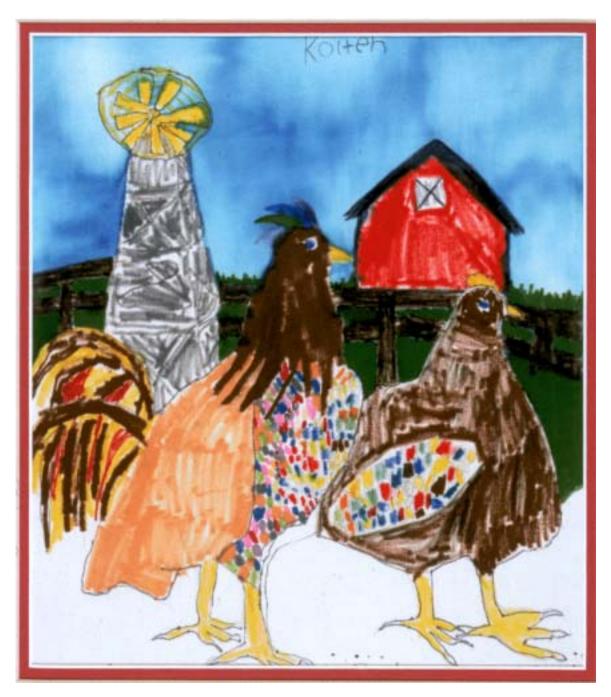
2000 Crop Statistics & Annual Report



County of San Diego

Department of Agriculture, Weights & Measures

In Memory . . .

This 2000 Crop Statistics & Annual Report is dedicated to the memory of Robert (Bob) Moore, Senior Agricultural/Standards Inspector. Bob passed away suddenly in June of 2000. He is remembered with great affection by all members of the Department of Agriculture, Weights and Measures.

Kolten J. Horner is the talented young artist who is responsible for the cover of this year's report. Kolten was five years old in 2000 when he created the barnyard scene. We extend our thanks to Kolten for his wonderful depiction of San Diego's poultry and livestock industry.



William J. Lyons, Jr. Secretary

California Department of Food and Agriculture

and

The Honorable Board of Supervisors of the County of San Diego Supervisor Bill Horn, Chairman, 5th District Supervisor Ron Roberts, Vice Chairman, 4th District Supervisor Greg Cox, 1st District Supervisor Dianne Jacob, 2nd District Supervisor Pam Slater, 3rd District

I respectfully submit the report of acreage, yield and value of agricultural production in San Diego County in 2000. This report also contains the Department of Agriculture, Weights and Measures' 2000 Annual Report.

The total reported agricultural value for 2000 is \$1,253,884,664. This is the highest ever reported for San Diego County and is the 8th successive year of growth in value for the San Diego County agricultural industry.

Indoor flowering and foliage plants continues to be the number one crop for production value. This crop is also known for its long history of thriving side-by-side with urban development. San Diego County is unique in many ways, not the least of which is the mix of urban and agricultural activities. According to the California Department of Finance, Demographic Research Unit, San Diego is the only California county that can be classified as both a major urban county, while also being one of the top agricultural counties.

Highlights:

The nursery and flower industry continued to comprise the largest economic component of the San Diego agricultural industry, with 63% of the dollars generated. Indoor flowering plants and foliage produced \$310,212,511, or 24% of the County's agricultural industry value.

Fruit and nut commodities reported a mixed year. Persimmons (one of the crops most aggected by the Mexican fruit fly quarantine) experienced a 26% loss in value. Much of the persimmon production areas lie withing the quarantined area of Fallbrook. It should be noted that while there was a 110 acre decrease in persimmon acres harvested that is not a decrease in plantings, rather it reflects fruit not harvested due to the quarantine. The total value for the citrus industry reflected an 11% decline, with the greatest loss being 2% for navel oranges, part of a statewide trend. Strawberries were a standout for their 29% increase in value and a 35% increase in acreage.

Vegetable crops reported a 2% overall decline in value, but several corps reflected increases. Chili peppers reported value increased by 36%. Cabbage value increased by 303% in 2000, much of that attributed to a 38% increase in acreage. Tomato acreage declined by 25%, yet production value increased 17%.

All reported figures represent F.O.B. (Freight on Board) values for products, whether sold or used on the farm where grown. They are not net vlues and do not reflect cost of production. Total values do not add precisely due to rounding. Gross value of farm porducts does not reflect the total value to the economy. For every dollar value of an agricultural product, there is multiplying factor (3.5) that may be applied, makin an estimated economic impact of \$4,388,596,324.

My thanks to the many farmers and ranchers who provided information for this report. Also vital was cooperation from organizations, especially the San Diego County Farm Bureau and the San Diego Flower and Plant Association. My personal gratitude is extended to Lynn Parker, Senior Agricultural/Standards Inspector, who complied the statistics and Delores Brandon, Supervising Agricultural/Standards Inspector, who edited and compiled this Year 2000 report.

KATHLEEN A. THUNER Agricultural Commissioner/ Sealer of Weights and Measures

Crop Report Highlights

Total Value \$1,253,884,664

Estimated Economic Impact \$4,388,704,414

Change in Value from 1999 +\$17,541,551

-Percent of Change %

Total Acreage 164,357

Change in Number of Acres Harvested from 1999 -3,107 Acres

-Percent of Change -2%

#1 Crop Indoor Flowering & Foliage Plants

-Value \$310212511

Crop with Greatest Percent Change in Value Cabbage

-Percent of Change 303%

Crop with Highest Value Per Acre Indoor Flowering & Foliage Plants

-Dollar Value Per Acre \$619,187

Crop with Lowest Value Per Acre (excluding range) Oat, Grain

-Dollar Value Per Acre \$102.40

Rank of Agriculture as a Component of

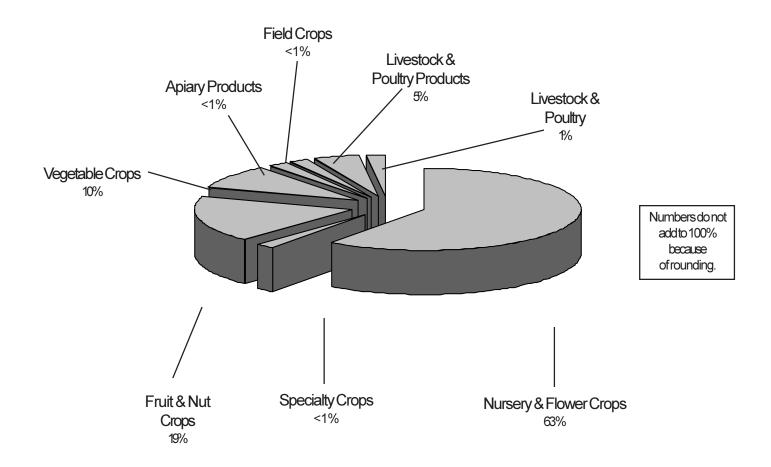
San Diego County's Economy 4th**

^{**}Source: Greater San Diego Chamber of Commerce.

Summary 2000 & 1999

	Acres	2000 Hectares	Value	Acres	1999 Hectares	Value
Nursery Products & Flower Crops	8,814	3,372	\$790,140,332	8,629	3,492	\$767,766,905
Fruit & Nut Crops	44.503	19,906	\$244,152,511	44,907	18,175	\$245,602,494
Vegetable Crops	9,240	3,739	\$129,159,542	*10,481	*4,242	*\$112,486,023
Field Crops	101,800	41,196	\$5,140,211	103,447	41,868	\$5,729,053
Apiary Products	•		\$1,263,279			\$1,259,718
Livestock & Poultry			\$18,258,802			\$14,909,685
Livestock & Poultry Products			\$65,294,742			\$68,371,153
Specialty Crops			\$475,245			\$503,568
	164,357	68,213	\$1,253,884,664	*167,464	*67,777	*\$1,216,628,599

^{*} These totals were adjusted to reflect updated data for 1999.

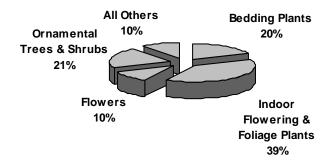


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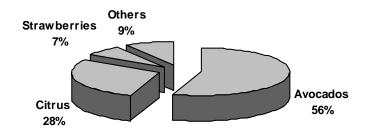
Summary 2000 & 1999

Percent of Values by Selected Commodity Groups

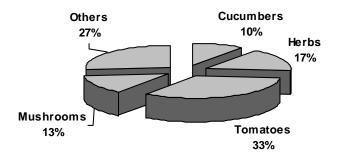
Nursery & Flower Crops



Fruit & Nut Crops



Vegetable Crops





Nursery & Flower Crops 2000 & 1999

CROP	Year	Acres	Hectares	TOTAL
NURSERYPRODUCTS				
BEDDINGPLANTS, COLOR	2000	800	324	\$147,545,454
	1999	785	318	\$145,446,525
BULBS, CORMS, RHIZOMES,	2000	145	59	\$1,758,454
ROOTS, TUBERS	1999	140	57	\$1,603,025
CACTUSANDSUCCULENTS	2000	195	79	\$19,587,544
	1999	185	75	\$18,385,652
CITRUS,AVOCADO,AND	2000	192	78	\$7,214,745
SUBTROPICALFRUITTREES	1999	192	78	\$6,898,542
CUTCHRISTMASTREES	2000	185	75	\$1,381,201
	1999	185	75	\$1,352,512
HERBACEOUSPERENNIALS	2000	175	71	\$9,302,210
	1999	150	61	\$8,965,689
INDOORFLOWERINGPLANTS&	2000	501	203	\$310,212, 511
FOLIAGE	1999	499	202	\$306,525,453
ORNAMENTALTREES	2000	2,350	951	\$169,548,457
ANDSHRUBS	1999	2,200	890	\$162,568,521
POINSETTIA	2000	130	53	\$34,541,214
	1999	125	51	\$33,565,221
TURF	2000 1999	488 488		\$5,421,454 \$5,314,320
TOTALNURSERYPRODUCTS	2000	5,161	1,893	\$706,513,244
	1999	4,949	1,807	\$690,625,460

Nursery & Flower Crops 2000 & 1999



CROP	Year	Acres	Hectares	TOTAL
FLOWERCROPS				
CARNATIONS	2000	44	18	\$2,040,107
	1999	50	20	\$2,231,506
CARNATION, STANDARD	2000	12	5	\$785,325
	1999	15	6	\$845,854
CARNATION, MINI	2000	32	13	\$1,254,782
	1999	35	14	\$1,385,652
CUTFOLIAGE	2000	550	223	\$9,854,787
	1999	550	223	\$9,125,484
LEPTOSPERMUM	2000	380	154	\$2,845,554
	1999	380	154	\$2,535,254
PROTEAS	2000	475	192	\$4,015,464
	1999	475	192	\$3,758,458
ROSES	2000	30	12	\$5,024,485
	1999	45	18	\$6,587,452
WAXFLOWERS	2000	730	295	\$8,644,570
	1998	730	295	\$8,352,145
ALLOTHERS	2000	1,400	567	\$51,202,121
	1999	1,400	567	\$49,865,466
TOTALFLOWERPRODUCTS	S 2000	3,653	1,479	\$83,627,088
	1999	3,680	1,489	\$82,455,765
TOTALNURSERY&	2000	8,81 4	3,372	\$790,140,332
FLOWERCROPS	1999	8,629	3,296	\$773,081,225



Fruit & Nut Crops 2000 & 1999

		Harves	tod	Produc	tion letric Tons/	Total P	roduction	US\$/	US\$/	
CROP	Year Ad	cres Hec			ectare	Tons	Metric Tons	Ton	Metric Ton	TOTAL
APPLES	2000 1999	450 505	182 204	2.25 2.22	5.04 4.98	1,013 1,12				\$350,190 \$405,394
FRESH	2000 1999	450 505	182 204	1.05 1.12	2.35 2.51	473 566	428 512	532 538	586 593	\$251,370 \$304,293
CIDER	2000 1999			1.2 1.1	2.69 2.47	540 556	490 504	183 182	202 201	\$98,820 \$101,101
AVOCADOS	2000 1999	25,997 26,347	10,521 10,662			60,78 55,78				\$149,548,586 \$147,846,527
HASS	2000 1999	23,147 23,147	9,367 9,367	2.41 2.16	5.40 4.84	55,78 49,99		2,585 2,840	2,849 3,131	\$144,202,416 \$141,992,900
FUERTE	2000 1999	750 900	304 364	1.38 1.41	3.09 3.16	1,035 1,269		1,159 923	1,278 1,017	\$1,199,565 \$1,171,287
OTHER	2000 1999	2,100 2,300	850 931	1.89 1.95	4.24 4.37	3,969 4,489		1,045 1,044	1,152 1,151	\$4,147,605 \$4,682,340
CITRUS	2000 1999	15,921 15,946	6,443 6,453			281,6 287,6	,			\$70,135,403 \$79,378,027
GRAPEFRUIT	2000 1999	2,800 2,800	1,133 1,133	16.59 16.7	37.19 37.44	46,45 46,76	·			\$7,310,100 \$7,245,980
FRESHMARKET	2000 1999	2,800 2,800	1,133 1,133	12.58 12.75		35,24 35,70		190 185	209 204	\$6,692,560 \$6,604,500
BYPRODUCT	2000 1999			4.01 3.95	8.99 8.85	11,22 11,06		55 58	61 64	\$617,540 \$641,480
KUMQUATS	2000 1999	140 140	57 57	2.32 2.88	5.20 6.46	325 403	296 368	929 965	1,024 1,064	\$301,739 \$389,088
LEMONS	2000 1999	3,211 3,211	1,299 1,299	19.12 19.37		61,39 62,19				\$22,480,395 \$23,778,152
FRESHMARKET	2000 1999	3,211 3,211	1,299 1,299	14.25 14.62		45,75 46,94		452 467	498 515	\$20,682,074 \$21,923,222
BYPRODUCTS	2000 1999			4.87 4.98	10.92 11.16	15,63 15,99		115 116	127 128	\$1,798,321 \$1,854,930
LIMES	2000 1999	625 650	253 263	7.95 6.98	17.82 15.65	4,969 4,537				\$1,270,518 \$1,144,196
FRESHMARKET	2000 1999	625 650	253 263	4.85 3.89	10.87 8.72	3,03 ² 2,529		368 385	406 424	\$1,115,518 \$973,473
BYPRODUCT	2000 1999			3.10 3.09	6.95 6.93	1,938 2,009		80 85	88 94	\$155,000 \$170,723

Fruit & Nut Crops 2000 & 1999



		l law casta d	J		Production	Total F	Production		LICA/ LICA	,
CROP	Year	Harvested Acres Hecta		Tons/ Metr Acre Hed	tare	Tons	Metric Tons		US\$/ US\$/ Ton Metric To	
ORANGES, NAVEL	2000 1999	,	589 589	14.64 15.34	32.82 34.39	21.301 22,320	19.331 20,256			\$4,149,386 \$5,343,042
FRESHMARKET	2000 1999	,	i89 i89	10.95 12.51	24.55 28.04	15,932 18,202	14,460 16,516	220 263	243 290	\$3,505,106 \$4,787,152
BYPRODUCT	2000 1999			3.69 2.83	8.27 6.34	5,369 4,118	4,871 3,734	120 135	132 149	\$644,280 \$555,890
ORANGES, VALENCIA	2000 1999	,	2,748 2,748	19.81 19.84	44.41 44.47	134,510 134,714	122,039 122,204			\$28,881,265 \$33,818,749
FRESHMARKET	2000 1999	,	2,748 2,748	14.95 16.59	33.51 37.19	101,511 112,646	92,085 102,198	226 263	249 290	\$22,941,373 \$29,625,924
BYPRODUCT	2000 1999			4.86 3.25	10.89 7.29	32,999 22,068	29,926 20,033	180 190	198 209	\$5,939,892 \$4,192,825
TANGERINE, TANGELO	2000 1999		664 664	14.10 17.78	31.61 39.86	12,690 16,002	11,506 14,509			\$5,742,000 \$7,658,820
FRESHMARKET	2000 1999		664 664	10.00 13.88	22.42 31.11	9,000 12,492	8,161 11,324	597 585	658 645	\$5,373,000 \$7,307,820
BYPRODUCT	2000 1999			4.1 3.9	9.19 8.74	3,690 3,510	3,345 3,181	100 100	110 110	\$369,000 \$351,000
GRAPES, WINE	2000 1999			1.84 2.03	4.12 4.55	322 384	293 346	300 420	331 463	\$96,600 \$161,154
MACADAMIANUTS	2000 1999			1.18 1.21	2.65 2.71	218 224	199 203	2,258 2,280	· ·	\$492,921 \$510,492
MISC.FRUITS&NUTS*	2000 1999		310 344							\$3,658,755 \$3,856,854
PERSIMIMONS	2000 1999		38 82	4.31 4.29	9.66 9.62	1,465 1,931	1,333 1,751	378 388	417 428	\$553,921 \$749,034
STRAWBERRIES	2000 1999		71 76	25.26 25.15	56.62 56.38	16,924 10,940	15,344 9,923			\$19,315,135 \$12,695,012
FRESHMARKET	2000 1999		71 76	17.63 17.56	39.52 39.36	11,812 7,639	10,710 6,927	1,424 1,381		\$16,820,430 \$10,548,907
PROCESSING	2000 1999			7.63 7.59	17.10 17.01	5,112 3,302	4,634 2,994	488 650	538 716	\$2,494,705 \$2,146,105
TOTALFRUIT & NUTCROPS	2000 1999									\$244,152,511 \$245,602,494

^{*}Includes apricots, cherimoyas, raspberries, peaches, pears, guavas and walnuts.



Vegetable Crops 2000 & 1999

		Llowinsto	d To	Produ	uction	Total Pr	oduction	US\$/	US\$/	
CROP	Year A	Harveste Acres Hectar			ectare	Tons	Metric Tons		Metric Ton	TOTAL
BEANS, SNAP	2000 1999		154 117	4.31 4.28	9.66 9.59	1,642 1,241	1,488 1,122	1,143 1,158		\$1,876,920 \$1,437,310
BUNCHVEGETABLES*	2000 1999		146 138							\$2,487,854 \$2,085,658
CABBAGE	2000 1999		32 12	14.96 15.06	33.54 33.76	1,197 452	1,073 405	315 275	347 303	\$376,992 \$124,245
CORN,SWEET	2000 1999		110 174	7.75 7.6	17.37 17.04	2,108 3,260	1, 911 2,965	385 328	424 362	\$811,580 \$1,069,411
TOTALCUCUMBERS	2000 1999		618 719			21,413 21,277	19,449 19,304			\$12,641,906 \$12,127,382
FIELD GROWN	2000 1999	,	613 714	13.85 11.81	31.05 26.47	20,969 20,845	19,034 18,900	571 551	629 607	\$11,973,242 \$11,485,430
HOTHOUSEGROWN	2000 1999		5 5	37 36	82.94 80.7	444 432	415 404	1,506 1,486		\$668,664 \$641,952
HERES	2000 1999		190 197	18.65 20.25	41.81 45.39	8,747 9,842	7,944 8,942	2,452 2,468		\$21,447,399 \$24,288,822
MUSHROOMS	2000 1999		10 10	276 279	618.70 625.43	6,900 6,975	6,187 6,254	2,501 2,486		\$17,256,900 \$17,339,850
PEPPERS,BELL	2000 1999		200 253	14.88 14.52	33.36 32.55	7,351 9,090	6,672 8,235	581 579	640 638	\$4,270,757 \$5,262,821
PEPPERS,CHILI	2000 1999		35 34	15.00 15.03	33.63 33.69	1,305 1,278	1,177 1,145	1,180 773	1,087 852	\$1,539,900 \$987,585
POTATOES	2000 1999		387 698	20.58 20.58	46.13 46.13	19,695 35,501	17,852 32,199	125 110	138 121	\$2,461,888 \$3,905,055
SQUASH	2000 1999		139 164	12.06 11.95	27.03 26.79	4,137 4,840	3,757 4,394	423 418	466 461	\$1,749,782 \$2,023,036
TOTALTOMATOES	2000 1999		1348 1433			66,940 64,583	60,727 57,357			\$43,372,452 \$28,769,282
TOMATOES, FRESH	2000 1999		1308 1386	20.15 18.25	45.17 40.01	65,105 62,506	59,082 55,454	645 438	711 483	\$41,992,725 \$27,377,759
TOMATOES, CHERRY	2000 1999		40 47	18.35 18.06	41.13 40.48	1,835 2,077	1,645 1,903	752 670	829 739	\$1,379,920 \$1,391,523
MISC.VEGETABLES**	2000 1999		370 293							\$18,865,212 \$13,065,566
TOTALVEGETABLES	2000 ***1999	9,240 10,481								\$129,159,542 \$112,486,023

Includes collards, Chinese cabbage, green onions, mustard & turnip greens, parsley, radishes and spinach.
 Includes canteloupe, chayote, pumpkin, tomatillos, sweet potato, cauliflower, watermelon, leaf lettuce, celery & winter squash.
 These totals were adjusted to reflect updated data for 1999.

Field Crops 2000 & 1999



					duction etric Tons		roduction	US\$/	US\$/	
CROP	Year	Acres	Hectares	Acre	Hectare	Tons	Metric Tons	Ton	Metric Ton	TOTAL
BARLEY,GRAIN	2000	75	30	1.87	4.19	140	126	105.29	116.06	\$14,772
	1999	90	36	1.65	3.7	149	133	102.65	114.85	\$15,244
GREENCHOP	2000	100	40	24.08	53.98	2,408	2,159	23.65	26.07	\$56,949
	1999	125	51	23.02	51.6	2,878	2,632	22.85	25.19	\$65,751
HAY, OAT	2000	3,285	1,329	2.15	4.82	7,063	6,406	53.06	58.49	\$374.752
	1999	3,750	1,518	2.2	4.93	8,250	7,484	52.81	58.21	\$435,683
OAT, GRAIN	2000	105	42	1.01	2.26	106	95	101.35	111.72	\$10,753
	1999	200	81	0.98	2.2	196	178	102.65	115.01	\$20,119
PASTURE, IRRIGATED	2000 1999	2,500 2,750	1,012 1,113					1,600.00 1,560.00	1,763.68 1,719.59	\$4,000,000 \$4,290,000
RANGE	2000 1999	95,000 95,000	,					5.01 4.97	5.52 5.48	\$475.950 \$472,150
SILAGE	2000	35	14	15.1	33.85	529	474	23.50	25.90	\$12,420
	1999	32	13	14.5	32.5	464	423	22.60	24.91	\$10,486
WHEAT	2000	700	283	2.05	4.60	1,435	1,302	135.62	149.49	\$194,615
	1999	1,500	607	2.09	4.69	3,135	2,847	133.85	147.54	\$419,620
TOTALFIELDCROPS	2000 1999	101,80 103,44								\$5,140,211 \$5,729,053

Apiary Products 2000 & 1999



CROP	Year	TOTAL
HONEY	2000 1999	\$1,102,121 \$1,099,565
BEESWAX	2000 1999	\$22,055 \$21,032
BEESANDQUEENS	2000 1999	\$87,545 \$88,656
POLLEN	2000 1999	\$46,058 \$45,265
POLLINATION	2000 1999	\$5,500 \$5,200
TOTALAPIARY	2000 1999	\$1,263,279 \$1,259,718



				Weight	Per	Unit	
	Year	#Head	CWT	Metric Ton	CWT	Metric Ton	TOTAL
CATTLEANDCALVES	2000 1999	29,000 27,050	217,500 202,875	9,865 9,201	71.08 64.85	1,567 1,430	\$15,459,900 \$13,156,444
HOGSANDPIGS	2000 1999	1325 1450	3,313 3,625	150 164	43.7 35.1	963 774	\$ 144,778 \$ 127,238
CHICKENS, MISC. MEAT	2000 1999	1,975,456 1,989,888	71,116 71,636	3,225 3,249	14.3 13	315.26 286.6	\$1,016,959 \$931,268
RABBITS	2000 1999	12,500 15,000	625 750	28 34	61.4 63.3	1,285 1,396	\$38,375 \$47,475
FLIGHTLESSBIRD*TOTAL	2000 1999						\$1,550,150 \$1,524,000
CHICKS	2000 1999	3,950 3,800			85 86	/CHICK /CHICK	\$335,750 \$326,800
MEAT	2000 1999	368,000 365,000	LBS. LBS.		3.3 3.28	/LB /LB	\$1,214,400 \$1,197,200
LAMB,SHEEP	2000 1999	640 768	640 768	29 35	76 71	1,650 1,565	\$48,640 \$54,528
TOTALLIVESTOCK ANDPOULTRY	2000 1999	2,022,871 2,037,956					\$18,258,802 \$15,840,953



Livestock & Poultry Products 2000 & 1999

			Producti	ion	Per	Unit		
	Year		CWT	Metric Ton	\$/CWT	Metric Ton	TOTAL	
MILK,MARKET	2000 1999		1,432,755 1,607,564	64,982 72,910	11.81 13.75	260 303	\$16,920,837 \$22,104,005	
MILK, MANUFACTURING	2000 1999		224 631	10 29	9.97 12.23	220 270	\$2,233 \$7,717	
EGGS, CHICKENMARKET	2000 1999		97,875,453 97,598,789	doz doz	0.49 0.47	doz doz	\$47,958,972 \$45,871,431	
FLIGHTLESS BIRD*PRODUCTS	2000 1999						\$412,700 \$388,000	
HIDES	2000 1999	1,150 1,000			130 135	/HIDE /HIDE	\$149,500 \$135,000	
OIL	2000 1999	2,350 2,200	GAL GAL		112 115	/GAL /GAL	\$263,200 \$253,000	
TOTALLIVESTOCKAND POULTRYPRODUCTS	2000 1999						\$65,294,742 \$68,371,153	

^{*}Flightless Birds include ostriches, emus, rheas, etc.

Specialty Crops 2000 & 1999

CROP	YEAR	TOTAL
TIMBER	2000	\$50,245
	1999	\$53,568
FIREWOOD	2000	\$425,000
	1999	\$450,000
TOTALSPECIALTYCROPS	2000	\$475,245
	1999	\$503,568

Crops Valued at \$10 Million or More



OROP	2000	1990
Indoor Flowering & Foliage Plants Ornamental Trees a & Shrubs Avocados Bedding Plants Cut Flowers (Flower Products) Eggs Tomatoes Poinsettia Valencia Oranges Lemons Herbs Cactus & Succulents Strawberries Mushrooms Milk, Market Cattle & Calves Cucumbers	\$310,212,511 \$169,548,457 \$149,549,586 \$147,545,454 \$83,627,088 \$47,958,972 \$43,372,452 \$34,541,214 \$28,881,265 \$22,480,395 \$21,447,399 \$19,587,544 \$19,315,135 \$17,256,900 \$16,920,837 \$15,459,900 \$12,641,906	*\$195,224,800 \$94,044,242 \$138,173,677 \$56,957,921 ** \$61,007,520 \$40,061,507 ** \$46,028,372 \$27,667,689 ** \$13,335,069 \$21,772,070 \$10,064,250 \$23,871,625 \$6,412,899 \$10,968,250

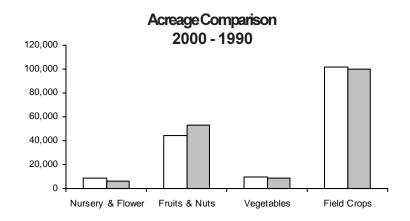
^{*}Identified as Indoor Decoratives in 1990

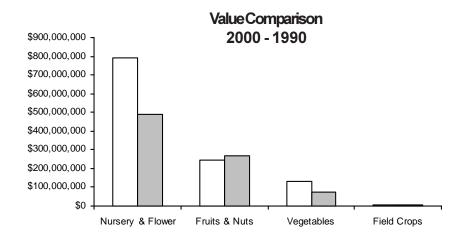
^{**} Category not reported separately in 1990.



Ten Year Comparison 2000 & 1990

		2000			1990	
Crop	Acres	Hectares	Value	Acres	Hectares	Value
Nursery & Flower Crops	8,814	3,567	\$790,140,332	6,681	2,704	\$491,353,316
Fruit & Nut Crops	44,503	18,010	\$244,152,511	52,996	21,447	\$267,583,441
Livestock & Poultry Products			\$65,294,742			\$84,879,145
Vegetable Crops	9,240	3,739	\$129,159,542	8,625	3,491	\$72,397,394
Livestock & Poultry			\$18,258,802			\$12,010,849
Field Crops	101,800	41,196	\$5,140,211	99,615	40,314	\$5,227,706
Apiary Products			\$1,263,279			\$577,088
Specialty Crops			\$475,245			\$682,000
TOTAL	164,357	66,515	\$1,253,884,664	167,917	67,956	\$934,710,939





The Fallbrook Quarantine



The Impact of the Mexican Fruit Fly

Much of the year 2000 was a difficult period for the northern San Diego agricultural community of Fallbrook. It all began on October 12, 1999, when a male Mexican fruit fly was trapped in a residential area. Twenty-four days later on October 28, a second Mexican fruit fly was trapped nearby. This second fly was a mature female. It was the discovery of this reproductive female that triggered the declaration of an agricultural quarantine.

You may be wondering just why anyone came to "trap" an insect, let alone a Mexican fruit fly. Since 1970 the County of San Diego Department of Agriculture, Weights and Measures has conducted a trapping program for exotic agricultural pests. This program has been funded through a contract with the California Department of Food and Agriculture since 1980, and supports the agricultural industry throughout the nation, the state and San Diego County. Agriculture is the fourth leading economic sector for the county. For eight successive years agriculture has added in excess of \$1 Billion to the local economy. Much as a medical quarantine protects a community from a serious health threat, an agricultural quarantine protects both agricultural industry and the home gardener from a serious economic pest.

The County of San Diego is the seventh leading agricultural producer in the state, and California is the number one agricultural producer in the nation. What impacts San Diego very much impacts the nation. Products are sold locally as well as on the national and the international market. Because of the global marketplace we must all be concerned about the possibility for the introduction of exotic pests and diseases that could devastate the food supply. The purpose of an agricultural quarantine is to prevent the spread of pests and diseases once they have been detected, and to ensure our trading partners that agricultural products are free from devastating economic pests.



The effect of this local quarantine was profound. The Mexican Fruit Fly Quarantine zone consisted of a 72-square mile area, including 11,000 acres of agricultural production, with 1,470 growers who produced over 20 different crops.

These basic facts do not begin to tell the whole story. This quarantine affected every aspect of the lives of the farmers and residents with backyard fruit trees and home gardens; it affected the lives of people who harvest, ship and pack fruit, including farm stands and farmers markets; it affected the numerous government agencies who oversaw the quarantine; it affected the reporters and various media who followed each development; and it affected the legislators who tried to respond to the concerns. And while the quarantine ended on June 6, 2000, many of these same people are still trying to resolve the details of this massive effort.



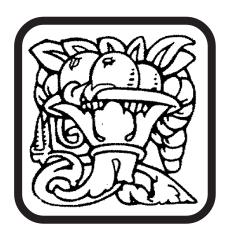
There have been many agricultural quarantines throughout California over the last few years. There have even been 11 fruit fly quarantines in San Diego County in the last 10 years. However, there has never been a quarantine quite like this one. San Diego County is unique in many ways, not the least of which is the mix of urban and agricultural activities. According to the California Department of Finance, Demographic Research Unit, San Diego is the only county that can be classified as both a major urban county and one of the top agricultural counties.

Fallbrook both typifies agriculture in San Diego County and at the same time stands out as unique. Sixty-five percent of farms in San Diego County are nine or fewer acres, according to the 1997 U.S. Census of Agriculture. Many of the growers affected by the quarantine were these small operations. Fallbrook stands out for the bounty and diversity of agricultural products produced.

It was this abundance and unique mix of commodities that brought such serious economic hardship. It is estimated that during this period affected growers would have produced about 30 million pounds of fruit, of at least 20 different regulated crops, valued at approximately \$49 million. Unfortunately, the quarantine came at the peak harvest time.

The quarantine essentially prohibited the movement of all fresh fruit that could provide host material for the pest — both commercial and backyard - from the property where grown. Soil and any other product, article, or means of conveyance that could theoretically present a hazard of spreading the live Mexican fruit fly was also prohibited movement. In addition, all potential host material had to be inspected and an approved treatment completed before the material could be moved out of the quarantine zone.

As Mexican fruit fly is both a Federal and State regulated pest, both the United States Department of Agriculture (USDA) and the California Department of Food and Agriculture (CDFA) established criteria for treatment of most common varieties of fruits and vegetables. The quarantine in Fallbrook primarily affected exotic fruit growers. The growers within the quarantined area had five options - treatment using a spray application of pesticides for fruit not yet harvested, fumigation of harvested fruit with methyl bromide, cold storage of harvested fruit, electing not to treat at all and wait until the quarantine was lifted. Finally, for those crops with no established treatment, disposal was the only option. Unfortunately, many of the specialty fruit crops grown in Fallbrook fell into the last category.



Fallbrook is an area where it is possible to produce high-value, specialty crops such as guavas, persimmons, cherimoyas, pomegranates and sapotes. As a result of the quarantine and the lack of available treatment protocols, growers watched as their fruit ripened, fell to the ground and rotted. It is reported that most of the soft fruit growers experienced a total loss of their 1999 - 2000 crop. Processing such as cooking, canning, and drying were the only possible alternatives. Unfortunately, there are no commercial facilities for this type of processing within the quarantine zone, nor areas who would accept quarantined fruit outside of the quarantine zone. The commercial market for these specialty crops remains fresh fruit, at peak of ripeness.



In addition, there were 134 registered organic growers within the quarantine area. The process to become a registered organic producer requires that the land be pesticide-free for a period of three years. Therefore, treatments using chemical pesticides were not acceptable to some certifying agencies and, if used, could have affected subsequent years of production. As a result, these growers experienced severe losses due to the quarantine.

San Diego continues to be the top avocado-producing county in the country, with Fallbrook being the leading area. Unlike some of the soft fruits, not all avocado varieties were at peak harvest as the quarantine was imposed. However, some were ripening and becoming ready for harvest very soon. In prior situations involving exotic pest quarantines, avocado growers had been able to utilize fumigation as a treatment option. Once again this quarantine for Mexican fruit fly proved different. After the quarantine was imposed, methyl bromide failed efficacy tests as a fumigant for avocados and was no longer approved as a post-harvest treatment option. Without the option to fumigate avocados, growers had to either implement a systems approach to applying Malathion on a weekly basis for up to 88 days or wait until the quarantine was lifted. Growers who opted to treat were required to obtain either a Special Local Need (SLN) permit from the County for the use of malathion or a Restricted Use Permit for the use of Spinosad (a material approved for use on organic commodities) and have each treatment supervised by State or Federal personnel.

Many avocado growers counted themselves lucky that their crop could simply remain on the tree and they could complete either the malathion or Spinosad treatment. Unfortunately, several episodes of high winds in late December, caused 1.5 to 2 million pounds of avocados to be blown off the trees. This caused further economic impacts for growers. The estimate for Fallbrook was 500,000 pounds of windfall fruit, but not all was within the quarantine area. Fruit that was picked up immediately, was within a few days of completing quarantine treatment and met maturity requirements was salvaged for sale. The quantities were extremely limited.



Yet another problem faced avocado growers. The quarantine period included the spring months when bees are used to pollinate the avocado trees for the next year's crop. The aerial and ground treatment of avocados with malathion posed a potential risk to the bees. The Malathion label specifically states it should not be applied or allowed to drift to blooming crops or weeds if bees are visiting the area to be treated. The regulatory agencies agreeed that one solution could be aerial applications in the early morning while bees were inactive. As the bloom period for avocados progressed, the health and safety of bees became a concern for adequate pollination and fruit set. This quarantine affected a broad spectrum of the community. Early on, numerous local, state and federal legislators became involved in the quarantine. The San Diego County Board of Supervisors supported relief efforts from the very beginning by declaring a local emergency. The Board repeatedly renewed that



declaration throughout the many months of the quarantine. All of those affected were enormously frustrated when efforts to have the quarantine declared a disaster at the State level failed. This precluded a federal declaration of disaster and the immediate aid that might have resulted. However, in the face of that difficulty, there continued to be interest at the federal level.

On February 9, 2000, Dr. Isi Siddiqui, Senior Trade Advisor to the Secretary of the U.S. Department of Agriculture visited San Diego County. During this meeting at the San Diego County Farm Bureau, local growers who had suffered the loss of their crops were told not to expect any funding from the federal government unless special legislation was provided.

Later that month, Dr. Enrique Figueroa, Undersecretary of Agriculture, visited the ports of entry at San Ysidro and Otay Mesa. Dr. Figueroa stated that a stronger intelligence-gathering effort, coupled with proposed federal legislation, would dramatically increase maximum fines for smuggling and curtail smuggling activities. (This Federal effort to reduce smuggling of contraband foodstuffs from Mexico into the United States would shift the strategy aimed at apprehending recipients of food items illegally transported across the border.)



As the months went by with no additional pest discoveries, both industry and enforcement agencies began to look forward to the end of the quarantine. The regulatory portion of the quarantine ended on June 6, 2000, the effects were far from over. Through the efforts of a number of state and national legislators the United States Congress approved measures that allowed growers to apply for aide through the United States Department of Agriculture—Farm Services Agency. Unfortunately, only a small portion of the growers' documented losses proved eligible for compensation.

The growers, packers, shippers and all of the affected citizens of Fallbrook should be recognized for their contribution to the success of this quarantine effort in preventing the establishment and spread of the Mexican fruit fly. There has <u>never</u> been a quarantine in California quite like this one. The sheer variety of fruit produced by small family farming operations made this quarantine unique. The establishment of the quarantine could not have come at a more difficult time—the beginning of the harvest season for such highly perishable crops as persimmons, cherimoyas and guavas. Numerous individuals and organizations came together to provide information and training and to oversee the regulatory process. United States Senator, Dianne Feinstein, State Senators Ray Haynes and Bill Morrow, and former Assemblyman Bruce Thompson are to be commended for their efforts on behalf of the farmers of Fallbrook.

Agriculture, Weights & Measures 2000Annual Report



Department Overview

The Department of Agriculture, Weights and Measures is a diverse department offering a wide variety of services. Although a County department, it is also part of a statewide network of County Agricultural Commissioners and Sealers of Weights and Measures that was created by the State legislature in the late 1800's. The Department has two primary missions that it works to achieve each business day. We strive to:

- Promote the sustainability of agriculture while protecting the environment and ensuring the health and safety of all citizens.
- Ensure equity in the marketplace by promoting awareness of laws and regulations and by enforcing them fairly and equally.

Some of the duties of the Agricultural Commissioner/Sealer remain the same as when the office was originally created, such as abatement of insect pests. However, the preservation, protection and regulation of the agricultural industry, as well as consumer and standards protection functions, have changed dramatically during that time. Besides the traditional activities of the Commissioner/Sealer, the office is now involved in endangered species conservation, agricultural land use issues, prescribed burning, animal health, habitat repair and certification of organic farms. As San Diego County grows and evolves, the Department of Agriculture, Weights and Measures strives to offer programs and services to meet the needs of our diverse community.

In addition to our role as a regulatory agency, the Department provides training programs for the regulated industry as well as community outreach to the public. These programs are often in collaboration with other governmental agencies and community groups. During 2000 the Department began an effort to develop and implement a cooperative approach regarding farmworker health issues. An intensive public awareness campaign for the Red Imported Fire Ant was also initiated. And reflecting the diversity of our programs and the public we serve, the Department was active in a number of consumer education programs such as the "Scam Jam" sponsored by the Better Business Bureau.

Organizational Structure

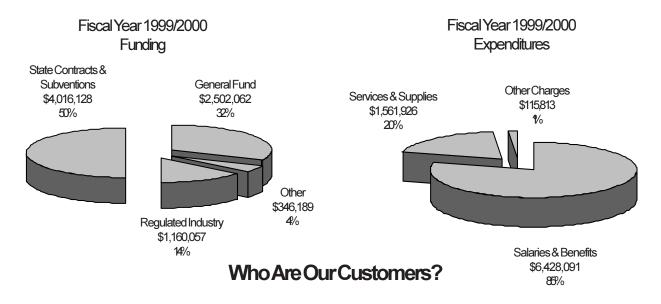
The Department of Agriculture, Weights and Measures reorganized during 2000 in order to provide more efficient and cost effective service. The Department has 135 budgeted staff persons, but the actual number of people on staff at any given time varies according to the seasonal needs of programs. The basic structure is shown below.





Budget

The functions of the Department are funded by the regulated industry, county government and state government. Breakdowns of departmental budgeted expenditures and revenues are shown below.



The answer to that question might surprise many people. We provide service to everyone in San Diego County, from those who come into our office to request a service, to those who are silently served by our employees, never knowing we've made your shopping more equitable or your environment safer.

This year:

- Over 700 citizens a month visited the front counters
- Weights & Measures worked with 6,472 businesses with 142,078 commercial weighing devices.
- Wildlife Services assisted more than 800 citizens with skunk, coyote, and other wildlife problems.
- Our three labs provided analysis and identification of samples for homeowners and industry alike.

The Veterinary lab processed more than 3,000 samples this year.

The Entomology lab processed 6,455 insect samples for identification.

Quality First:

The Rewards of Good Fiscal Management

How do you reward employees for doing their part in ensuring that financial and customer service goals are met? You share the savings resulting from improved processes and efficiencies! A new program in the County, known as Quality First, was again a success in its second year. Employees devised creative ways to conserve resources and helped implement programs, ensuring that customer service ratings would not be reduced. The result was a 6% savings, one-third of which went into reserves and two-thirds of which was shared among employees.

Standards Analysis & Identification



Standards Enforcement - Inspectors routinely test market scales, truck scales, gas pumps, electric, gas and water submeters, and commercially-used weighing and measuring devices to ensure that they are accurate and meet specification requirements. Packaged commodities are inspected for complete and accurate labeling and stated content. Scanners and other automated price look-up systems at retail locations throughout San Diego County are tested to verify that the prices charged at the checkstand match those advertised or posted in the stores. Produce inspectors conduct fruit and vegetable standardization inspections to make certain that produce meets maturity and quality requirements. Egg quality and grading standards are monitored through inspections at points of production, distribution and retail locations. The County's popular and successful Direct Marketing program, with 350 certified producers and over twenty different Certified Farmers' Markets, is regulated by inspecting every growing location and market throughout the year. Inspectors document that the fruits, vegetables, flowers, and other commodities sold by participating farmers are of the seller's own production.

Entomology—This essential program provides insect laboratory identification services to both home owners and industry. Staff conduct surveys of insects, such as Red Imported Fire Ant, Africanized Honey Bees and Formosan Termites, and work with university and other professionals to tackle local pest problems. Without the lab, identification of harmful bugs, like fire ants and fruit flies, could take much longer and infestations could become more widespread.

Plant Pathology/Nematology—Both the nursery industry and backyard gardeners find the service of these professionals invaluable. This laboratory specializes in identifying diseases and nematodes (microscopic worms) that are harmful to plants. Staff also survey for problems in nurseries and other farms to prevent widespread infections of uncommon diseases or meet requirements for exportation worldwide.

Special Programs & Support



Watershed Resources and Pest Management—Staff reseed landfills to prevent erosion and runoff and work under contract with SDG&E to protect power poles and other equipment in wildfires. They conduct prescribed burns for habitat improvement and wildfire hazard reduction. They are responsible for a variety of pest control services in County-owned facilities and for vegetation control along County-maintained road rights-of-way and airports. Staff also manufacture anti-coagulant bait for control of ground squirrels and other rodents and administers the San Diego Weed Management Area.

Pest Detection - During 2000 Insect Detection Specialists inspected traps more than 211,000 times, and found a Mexican fruit fly, a Japanese beetle, a gypsy moth. Using this system of constant surveillance, staff are able to make early detection of potentially damaging exotic insects, ensuring timely quarantine and eradication efforts in order to prevent pests from spreading to other areas.

Support - This program includes all support functions, including fiscal, personnel, payroll, facilities and fleet management. Staff also coordinates County wide efforts within the Department, such as Strategic Planning, Quality First and staff development.

Environmental Services—This program provides technical expertise to Department programs and other County departments regarding land use issues that impact agriculture. Staff oversee the verification of active agricultural enterprise for the County's farmworker housing program, gather crop statistics for annual publication, as well as act as liasion to the agricultural and environmental communities.



Plant Protection & Pesticides

Pesticide Regulatory Program - Personnel from this program enforce the laws and regulations governing the use of pesticides in San Diego County. They assure that registered pesticides are used properly throughout the County. The regulated community includes: farmers, structural pest control businesses, maintenance gardeners, golf courses, government agencies and individuals. Inspectors observe applications of pesticides, issue permits for use of restricted pesticides, conduct residue sampling as appropriate, investigate illnesses and complaints and participate in training activities for the regulated community. Outreach is an important aspect of this program and recent efforts have focused on the development of community contacts for Farm Worker education regarding pesticides and illness reporting.

Plant Protection and Quarantine - The Plant Protection and Quarantine program is the first line of defense against the introduction of new pests. New pests have no natural predators here and might thrive in San Diego County's temperate climates, causing harm to humans, the environment and agriculture. This program inspects incoming packages at the airport, post offices, express carriers and truck terminals, ensuring that shipments "don't pack a pest." Plant Protection and Quarantine also protects a progressive nursery, cut flower and cut foliage industry and enables export world wide. Because of the millions of dollars in damage that the introduction of exotic pests can cause, the program is of vital importance to the agricultural industry.

Nursery, Seed and Pierce's Disease Control - The department is working with other County Agricultural Commissioners, the California Department of Food and Agriculture, the USDA, as well as local industry in responding to the threat Glassy Winged Sharpshooter, and the Pierce's Disease it transmits, poses to grape and citrus crops and many others. The Glassy-Winged Sharpshooter is well established in this county but not found throughout the state. Inspectors are working checking nurseries and shipments to keep this pest from traveling to the wine and table grape producing areas of California.



Office of the County Veterinarian

Required by the County Charter, the County Veterinarian leads efforts to find and limit infectious diseases of animals that can affect both other animals and humans. Veterinarians and other specialists perform necropsies (autopsies of animals), conduct a wide variety of laboratory tests, and cooperate with public health officials when outbreaks of diseases like Salmonella occur. Veterinary staff also work closely with the National Veterinary Services Laboratory providing tissue samples for ongoing surveillance of Bovine Spongiform Encepholopathy (Mad Cow Diesease) and for the national scrapie eradication program.

The Office also includes Wildlife Services, a cooperative program with the State and Federal governments to control wildlife damage to people, other animals and property.

Department Highlights



The year 2000 proved to be another one of leadership and collaboration for the Department of Agriculture, Weights and Measures. Shown below are a sampling of the highlights that showcase the department's vision and mission. They also demonstrate our desire to work both with other departments and agencies, but most importantly they show our commitment to the community.

- This year a Weed Management Area was formed to control the invasive weed Perennial Pepperweed. Staff worked with the California Department of Food and Agriculture and numerous community groups to form this innovative approach for dealing with noxious weeds.
- The department worked closely with Supervisor Cox and his staff and the community of Chula Vista to successfully open a museum in the former County of San Diego Insectary. The museum will serve school children and residents in highlighting awareness of the agricultural
- beritage of the south county area. Dr. Kerry Mahoney, County Veterinarian, was one of only 28 veterinary pathologists selected from veterinary schools and government diagnostic laboratories to receive training on Foreign Animal Diseases at Plum Island, New York in November of 2000.
- An infestation of Mexican fruit flies was discovered in the fall of 1999 and the north county community of Fallbrook was placed under a quarantine that lasted 200 days. The infestation was especially devastating to the exotic fruit producers of the area. The quarantine was lifted in June of 2000
- in June of 2000.
 Delegates from Korea visited San Diego County to inspect citrus groves. They were concerned about importing fruit and wanted to learn more about pest detection procedures for exotic fruit flies here in the United States, and specifically here in San Diego.
- The year 2000 was significant more for what diseases were <u>not</u> found in the county than what were found. In the previous three years chrysanthemum white rust caused by the fungus *Puccinia horiana* caused losses to growers. Thanks to efforts of growers to take preventative measures, this disease was not found in the county in 2000.
- The Entomology Lab processed 6,455 samples during 2000. An increase of 44% over the 2,876 samples the previous year. A significant portion of that increase was due to the new Glassy Winged Sharpshooter/Pierce's Disease Control program.
- The Pesticide Regulatory Program began a focused Farm Worker outreach project. This project involves working with other community-based organizations along with state and federal agencies. The goal is to improve pesticide communication to field workers and increase physician awareness of pesticide related illness.
- Gypsy moth was detected for the third consecutive year in the Bonsall area and is currently under eradication with a biological pesticide. The Plant Protection and Quarantine program is working with the California Department of Food and Agriculture to prevent the establish-
- ment of this pest. The Standards staff worked to assist local growers with new State laws regarding the Certified Producer program. Farmers' Market participants are verified to be the actual producer/ growers and their products are checked to ensure they meet specific produce quality standards.

Personnel

Agricultural Commissioner, Sealer of Weights and Measures

Kathleen A. Thuner

Administration

Deputy Director, Pesticides & Plant Protection

Projects/Support Sharon Geraty

Deputy Director, Standards, Analysis, Identification

Kurt Floren

Deputy Director, Special

Kathleen DaVee

County Veterinarian

Kerry Mahoney

Administrative Support

Judi Dunlap JoAnn Jefferies Felisa Ordonez Marcia Powell

Deputy Agricultural Commissioners/Sealers of Weights and Measures

Lisa Leondis Dawn Nielsen Simone Hardy

Supervising Inspectors

John Blocker Delores Brandon Neil Connelly Cindy Davis Paul Davy Stephen Durso Cathy Neville Stasi Redding Rick Williams

Analysis and Identification

Special Programs

David Kellum, Ph.D. Pat Nolan Paul Cadena George Jones Mark Martinez Bob Eisele Lisa Gabel Ron Hobgood Tawnie Makua

Office of the County Veterinarian

Jean Creek Tamara Gonzales Jesus Guajardo DVM Nikos Gurfield DVM Hubert Johnstone DVM Laurie Oliver-Perria Cynthia Shannon Alexina Wempren

Agricultural/Standards Inspectors

Tony Avina Ted Matsumoto Jose-Concepcion Duran Annie Silva Vincent Acosta Manige Farhoomand Flo McCutcheon Ann Sixtus Abdel Amador Michael Feelev Howard Metcalf Nestor Silva Veronica Anzaldo Robert Moore Ronald Flemming Ken Sims Chris Betschart David Fritz Megan Moore Kathryn Springer Clark Bixby Zoe Ginsky Charles Mosse Neil Stalnaker Jorge Olivares Thomas Bloomer John Gionfriddo Nancy Syzonenko Glenn Braaten Lynn Gordon Theodore Olsen GregoryTerhall Lynn Parker James Byers Lee Guidry Richard Waldrip Colleen Carr Richard Persky James Hinton Richard Walsh Stephen Desserich Vicente Rodriguez Atlaw Kebede Emie Webb Katherine Dobbins Marco Mares Lindsay Worcester

Pest Management Technicians

Steve Coyne James Daly Bruce Gardner George Kalin Brad Shipley

Insect Detection Specialists

Sulpicio Agnes, Jr Lisa Dumolt Shannon Lehreter Joy Murray-Roseberry Robert MacGregor Guy Allingham Jorge Fregoso Alan Sharon Mazen Stevens Richard Andrews Kahsai Ghebretnsea Loren Moreno Terri Bennett Charles Gross Adrienne Moss Ellen Vanarelli Tim Breuninger Belinda Moss Linda Hamel SusanWise. Brian Burkman Mark Huerta Quang Ong Muluneh Wube Jesus Calleros Lou Juarez Lawrence Randall Joseph Zumello Steve Robinson Linda Clark Vickie Kitts

Clerical Staff

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Student Workers

Michael Fichen Michael Krauss Scott Mikolich Emerald Narvaez